

## Two Early Stage Researcher positions of the MSCA-ITN PRORISK in Girona (Spain)

The Institute of Aquatic Ecology (IEA) at the University of Girona (UdG), and the Integrative Freshwater Ecology (IFE) group at the Center for Advanced Studies in Blanes from the Spanish National Research Council (CEAB-CSIC) are two scientific/academic institutions with their focus on aquatic ecology and located at the Girona area. Both institutions maintain research collaborations, not only due to their geographical proximity but also since they share scientific objectives, having complementary expertise, focus subjects and technical infrastructures.

The IEA at the UdG, the IFE group at the CEAB-CSIC, and the Marie Skłodowska -Curie Innovative Training Network (MSCA-ITN) project “Best chemical risk assessment professionals for maximum Ecosystem Services benefit (PRORISK)” OFFER two Early Stage Researcher (PhD Student) positions:

“**ESR7 - Linking physiological, individual and population level effects: AOP on the fish performance biomarkers**” hosted at IEA-UdG and “**ESR12 - Translating community change to ecosystem services provision**” hosted at CEAB-CSIC.

### IEA-UdG

The Institute of Aquatic Ecology ([Institut d'Ecologia Aquàtica](#), IEA) of the University of Girona is a research centre devoted to the study of all aquatic ecosystems, including marine and inland water habitats (rivers, lakes and reservoirs, and wetlands). It is currently organised in three Sections (Limnology, Microbiology and Marine biology), corresponding to three research groups. It presently consists of over 30 researchers on a wide array of water ecology topics (including studies on bacteria, algae, macroinvertebrates and fish), what facilitates multidisciplinary research. Research approaches include population, community and ecosystem ecology with a significant focus on global change effects, embracing impact of anthropogenic alterations (i.e. pollution, toxicants, nutrients), climate change (warming, water scarcity) and invasive species, also including management and conservation and statistical ecology.

### CEAB-CSIC

The Spanish National Research Council (CSIC) is the largest public institution dedicated to research in Spain and the third largest in Europe. The [CEAB-CSIC](#), is one of the 24th institutes of CSIC devoted to the study of Natural Resources, and it is a benchmark in marine biology, freshwater ecology, microbiology, and theoretical ecology. Besides its research productivity, CEAB is known for its training experience, its outreach activities, and its support for women in science. The CEAB has laboratory facilities for metagenomics and molecular biology analyses, organic and inorganic chemistry, and an experimental laboratory to work with organisms which includes recirculating chambers, a high-performance computational cluster for modelling and analysis of large data sets. The hosting research

group has long-term experimental study sites in urban and forested catchments with available background information and the open-field experimental facility “Urban River Lab” consisting on a set of large-scale artificial flumes and ponds and reconstructed streams. The ESR applicant will be ascribed to the Integrative Freshwater Ecology group (IFE), which focuses on the study of continental waters.

**PRORISK** ([www.prorisk-itn.eu](http://www.prorisk-itn.eu)) is a European Training Network funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No. 859891. The consortium comprises of 18 universities, research institutions, enterprises and partner organisations in 9 European countries and Canada creating a novel platform for training a network of Early Stage Researchers (ESRs) in the field of advanced Environmental Risk Assessment (ERA). Research and training provided through PhD study, PRORISK training programme and secondments in international multidisciplinary inter-sectorial teams in academia, industry and regulatory bodies will enable ESRs to address exposure, ecotoxicology, ecosystem services, as well as assessment and modelling of risks and socio-economic impacts. The ESRs within PRORISK will gain synthetic skills allowing them to develop and implement innovative ERA concepts and tools to link the effects of chemicals at different levels of biological organization to ecosystem services and to determine the socio-economic values of related environmental impacts.

### **ESR7: Linking physiological, individual and population level effects: AOP on the fish performance biomarkers**

This PhD project will focus on characterization of mechanisms of action and ecotoxicological effects of chemicals in zebrafish and establishing Adverse Outcome Pathway (AOP) network linking disruption on the fish performance biomarkers (swimming capacity, metabolic rates and aerobic scope) caused by chemicals with fitness changes at individual level and the propagation of individual fitness alterations into population level. These findings could be useful in the context of a regulatory risk assessment for fish performance disruptors.

ESR7 will be hold at the IEA-UdG, working also in collaboration with CEAB-CSIC. ESR7 will visit two institutions within the PRORISK consortium, thus will include two secondments: ECT, OEKOTOXIKOLOGIE GMBH, in Germany (2 months) and USFD, Animal and Plant Sciences Department, THE UNIVERSITY OF SHEFFIELD in the UK (2 months).

ESR7 will be enrolled in the doctoral degree programme and in the School of Doctoral Studies of UdG.

*For further information about the scientific content please contact the supervisors: Dr. Anna Vila-Gispert ([anna.vila@udg.edu](mailto:anna.vila@udg.edu)) and Dr. Helena Guasch ([helena.quasch@ceab.csic.es](mailto:helena.quasch@ceab.csic.es))*

## ESR12: Translating community change to ecosystem services provision

This PhD project will focus on structural and functional biofilm community responses to contaminants in order to obtain multiple functional responses of a natural “ecosystem” model (i.e. aquatic biofilms) to chemicals, including both autotrophs and heterotrophs responses in microbial food web as well as general ecosystem processes for a greater understanding of chemical-induced effects on microbial communities (fluvial biofilms) structural and functional end points which may be translated into specific ecosystem services loss and thus useful to define risk assessment

ESR12 will be hold at the CEAB-CSIC, working also in collaboration with IEA-UdG. ESR12 will visit two institutions within the PRORISK consortium, thus will include two secondments: USFD, Animal and Plant Sciences Department, THE UNIVERSITY OF SHEFFIELD in the UK, (3 months) and Consulteco s.r.o. in the Czech Republic (1 month).

ESR12 will be enrolled in the doctoral programme of Water Science and Technology (UdG).

*For further information about the scientific content please contact the supervisors: Dr. Helena Guasch ([helena.guasch@ceab.csic.es](mailto:helena.guasch@ceab.csic.es)) and Dr. Anna Romani ([anna.romani@udg.edu](mailto:anna.romani@udg.edu)).*

### MSCA eligibility criteria

1) At the date of recruitment the applicants for the MSCA fellowship must have no PhD and less than 4 years of full-time equivalent research experience from the award of the degree that entitles them to undertake a doctorate (either in the country in which the degree was obtained or in the country in which the applicant is to be recruited).

2) The applicants must not have resided or carried out their main activity (work, studies, etc.) in Spain for more than 12 months in the 3 years immediately before the recruitment date. Short stays, such as holidays, are not taken into account.

These eligibility requirements are non-negotiable and ineligible applicants will not be considered.

Eligible applicants can be of any nationality.

### Requirements and qualifications

The applicants must have a Master degree in biology, environmental sciences or other relevant field with knowledge and experience in experimental biological/chemical laboratory research. Fluency in English (working language) is a requirement.

### What we offer

The ESR will receive a contract of employment as a full-time researcher for the relevant period of their appointment, which will include applicable benefits in the host country. They will complete a comprehensive personalized career development programme, with targeted training measures and participate in a range of network events. The ESR will benefit from interdisciplinary cooperation and interaction within the network, providing them with the best preparation for a successful career in either academia or industry.

MSCA fellowships for ESRs provide salaries in line with H2020-MSCA-ITN-2019 call. Additional allowances for mobility and family (if applicable) are also provided. Further information is available on [www.prorisk-itn.eu](http://www.prorisk-itn.eu).

IEA-UdG and CEAB-CSIC will provide access to the state-of-the-art research infrastructure, a substantial re-location package and full support of the administrative office in the stimulating and diverse work environment. In addition, Girona province where IEA-UdG and CEAB-CSIC are located represents a safe and family-friendly environment.

#### Contract duration

The period of appointment for the ESR is 36 months, starting 1st July 2020 or as soon as possible thereafter.

#### Applications and selection process

Applications must be submitted via **e-mail**. Applicants should provide the following information in their application in English:

1. Cover Letter, stating which PhD project you are applying for and detailing your motivation and background for applying for the specific PhD project. Please indicate if you have applied for other PRORISK PhD fellowships (possible to apply up to three positions; indicate the preferences).
2. A detailed CV including technical and analytical skills and publications if applicable.
3. All academic level certificates (BSc and MSc) including university grades itemized by each course. Foreign documents should be sent as certified English translations.
4. A synopsis (abstract) of the BSc and MSc thesis if applicable, or any previous research project.
5. At least two professional referees (Name, address, telephone & email).

A review of applications will run continuously as they are received. The short-listed applicants complying with the requirements will be invited for personal or Skype interviews foreseen in February 2020.

IEA-UdG and CEAB-CSIC are committed to employment equality (esp. European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers) and welcomes applications from all qualified candidates fulfilling the requirements specified in this announcement.